

**Rocks** ▪ *Review and Reinforce*

# Igneous Rocks

## Understanding Main Ideas

*Fill in the blanks in the table below.*

Origin of Igneous Rock	Resulting Texture
Slow cooling of magma far beneath Earth's surface	1. _____
Extremely rapid cooling of lava in which no crystals form	2. _____
Rapid cooling of lava in which tiny crystals form	3. _____

*Answer the following questions on a separate sheet of paper.*

4. What is the most common extrusive rock? Where is it found?
5. What is the most common intrusive rock? Where is it found?
6. Explain how the silica content of molten material affects the color of igneous rocks.
7. What qualities of igneous rocks have long made them useful for tools and building materials?
8. Describe one use each for the igneous rocks granite, basalt, and pumice.

## Building Vocabulary

*Fill in the blank to complete each statement.*

9. Igneous rock formed from lava that erupted onto Earth's surface is called \_\_\_\_\_ rock.
10. Igneous rock formed from magma below Earth's surface is called \_\_\_\_\_ rock.

**Rocks** ▪ *Enrich*

## The Same but Different

Can two different rocks with different names have the same mineral composition? The answer is yes. There are six major kinds of igneous rocks: granite, diorite, gabbro, rhyolite, andesite, and basalt. Geologists usually group these six kinds of igneous rocks in pairs, because each pair generally contains the same minerals. Study the table below to see which igneous rocks are the same but different.

**Common Igneous Rocks**

<b>Intrusive rocks (Coarse-grained)</b>	Granite	Diorite	Gabbro
<b>Extrusive rocks (Fine-grained)</b>	Rhyolite	Andesite	Basalt
<b>Minerals</b>	Quartz, Feldspar, Muscovite, Amphibole	Amphibole, Feldspar, Pyroxene	Feldspar, Pyroxene, Olivine, Amphibole
<b>Color</b>	Light colored	Medium gray or green	Dark gray to black
→ → → → → → → Silica content of rock decreases → → → → → → →			
→ → → → → → → Rock color becomes darker → → → → → → →			

*Answer the following questions on a separate sheet of paper.*

- Which of the six major kinds of rock are intrusive and which are extrusive?
- Compare granite with rhyolite. How are they similar? How are they different?
- Compare the mineral composition of diorite with the mineral composition of andesite.
- In what way is gabbro different from basalt? What can you infer from this about how these two kinds of igneous rocks form?
- How is granite like gabbro?
- Which rock has more silica in it, granite or basalt?
- Is a rock with more silica in it likely to be lighter or darker than a rock with less silica in it?